

ATTTATTTATTTAATCATCTCATATGTGTCTATGTGTTCTGTTTAACCTCAGATCCTTCCACACA  
 AAGAAAACATACTGCAGAAACAATCGTGATTTCTGTAAGTCAACGGCAAACACCACCCCGTCTT  
 AACGGCCAGCAGGAAAAAATGAAGCATATTATCAATTCTGATGAACACACCAATGACACCGCAAG  
 AAATAACTCCGATTGTCCTGATGTAGTTTTGCCAGAAGAGATATTTTTTCAATCTCTGTCATTG  
 GCATATTGGAGAACTTGATTGTCCTCCTGGCTGTGATCAAAAATAAAAATCTCCAGTCCCCCATG  
 TATTTTTTTCATCTGCAGTTTGGCCATTTCTGACATGTTGGGCAGTCTGTATAAGATCTTGAAAA  
 CATCCTGATCATGTTTCAGAAACATGGGTATCTTAAGCCTCGTGGCAGTTTTGAAAGCACAGCAG  
 ATGACATCATTGACTGCATGTTTCATCCTCTCTTTGCTGGGCTCTATCTTCAGCCTGTCTGTCATT  
 GCAGCTGACCGTTACATCACCATCTTCCATGCCCTGCAATACCATAGCATTGTGACCATGCGCCG  
 CACCATCATCACCTAACAATTATCTGGATGTTCTGCACAGGGAGCGGCATCACCATGGTGATCT  
 TCTCCCACCACATCCCCACAGTGCTCACCTTCACATCGCTGTTCCCTTTGATGCTGGTTTTTATC  
 CTGTGTCTCTACATCCACATGTTCTTACTTGCCCGTCCCATGCTAGGAAGATCTCTACCCTTCC  
 TAGAACCAACATGAAGGGTGCCATGACACTAACCATCCTTCTTGAGTCTTCATCTTCTGTTGGG  
 CCCCCTTTGTGCTCCATGTTCTCTTAATGACCTTCTGCCCAAATAACCCTTACTGTGTTTGCTAC  
 ATGTCTCTCTTCCAGGTCAATGGCATGTTGATCATGTGCAATGCAGTTATTGACCCCTTTATATA  
 TGCCTTTCGGAGCCCAGAGCTCAGAGATGCATTCAAAGGATGCTCTTCTGCAACCGGTATTAGT  
 AGAATTTTTGATCCCTGCTTTGAGTGTTGTAAAGGGACCAAATAACACATCAGTCTGACA (SEQ  
 ID NO:1)

MKHIINSYEHTNDTARNNSDCPDVLPPEIFFTISVIGILENLIVLLAVIKNKNLQSPMYFFICS  
 LAISDMLGSLYKILENILIMFRNMGYLKPRGSFESTADDIIDCMFILSLLGSIFSLSVIAADRYI  
 TIFHALQYHSIVTMRRTIITLTIIWMFCTGSGITMVIFSHIPTVLTFTSLFPLMLLVFILCLYIH  
 MFLARSHARKISTLPRTNMKGAMTLTILLGVFIFCWAPFVLHVLLMTFCPNNPYCVCYMSLFQV  
 NGMLIMCNAVIDPFIYAFRSPELRDAFKRMLFCNRY (SEQ ID NO:2)

FIGURE 1

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underlined = deleted in targeting construct

**Bold** = sequence flanking Neo insert in targeting construct

ATTTATTTATTTAATCATCTCATATGTGTCTATGTGTTCTGTTTAAACCTCAGATCCTTCC  
 ACACAAAGAAAACATACTGCAGAAACAATCGTGATTTCTGTAAGTCAACGGCAAACACCA  
 CCCCCGTCTTAACGGCCAGCAGGAAAAAATGAAGCATATTATCAATTTCGTATGAACACAC  
 CAATGACACCGCAAGAAATAACTCCGATTGTCCTGATGTAGTTTTGCCAGAAGAGATATT  
 TTTCACAATCTCTGTCAATTGGCATATTGGAGAACTTGATTGTCCTCCTGGCTGTGATCAA  
 AAATAAAAATCTCCAGTCCCCCATGTATTTTTTTCATCTGCAGTTTGGCCATTTCTGACAT  
 GTTGGGCAGTCTGTATAAGATCTTGGAAAACATCCTGATCATGTTCAGAAACATGGGTTA  
 TCTTAAGCCTCGTGGCAGTTTTGAAAGCACAGCAGATGACATCATTGACTGCATGTTTCAT  
 CCTCTCTTTGCTGGGCTCTATCTTCAGCCTGTCTGTCATTGCAGCTGACCGTTACATCAC  
 CATCTTCCATGCCCTGCAATACCATAGCATTGTGACCATGCGCCGCACCATCATCACCCCT  
 AACAATTATCTGGATGTTCTGCACAGGGAGCGGCATCACCATGGTGATCTTCTCCCACCA  
 CATCCCCACAGTGCTCACCTTCACATCGCTGTTCCCTTTGATGCTGGTTTTTATCCTGTG  
 TCTCTACATCCACATGTTCTTACTTGCCCGCTCCCATGCTAGGAAGATCTCTACCCTTCC  
 TAGAACCAACATGAAGGGTGCCATGACACTAACCATCCTTCTTGGAGTCTTCATCTTCTG  
 TTGGGCCCCCTTTGTGCTCCATGTTCTCTTAATGACCTTCTGCCCAAATAACCCTTACTG  
 TGTTTGCTACATGTCTCTCTTCCAGGTCAATGGCATGTTGATCATGTGCAATGCAGTTAT  
 TGACCCCTTTATATATGCCTTTTCGGAGCCCAGAGCTCAGAGATGCATTCAAAGGATGCT  
 CTTCTGCAACCGGTATTAGTAGAATTTTTGATCCCTGCTTTGAGTGTTGTAAAGGGACCA  
 AATAACACATCAGTCTGACA (SEQ ID NO:1)

**FIGURE 2A**

# Gene Sequence Structure \*

371 bp

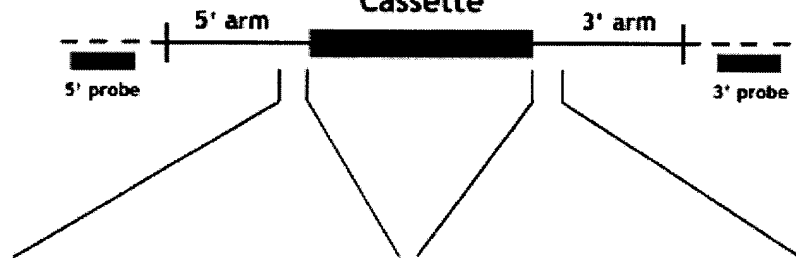
Sequence Deleted

796 bp

Size of full-length  
cDNA: 1100 bp

## Targeting Vector\* (genomic sequence)

### LacZ-Neo Cassette



———— Targeting Vector  
----- Endogenous Locus

\* Not drawn to scale

5' >ATGAACACACCAATGACACCG  
CAAGAAATAACTCCGATTGTCCTG  
ATGTAGTTTTGCCAGAAGAGATAT  
TTTTCACAATCTCTGTCATTGGCA  
TATTGGAGAACTTGATTGTCCTCC  
TGGCTGTGATCAAAAATAAAAATC  
TCCAGTCCCCCATGTATTTTTTCA  
TCTGCAGTTTGGCCATTTCTGACA  
TGTTGGGCAGT<3' (SEQ ID  
NO:3)

5' >GGTGCCATGACACTAACCATC  
CTTCTTGAGTCTTCATCTTCTGT  
TGGGCCCCCTTTGTGCTCCAATGTT  
CTCTTAATGACTTTCTGCCCCAAAT  
AACCCTTACTGTGTTTGCTACATG  
TCTCTCTCCAGGTCAATGGCATG  
TTGATCATGTGCAATGCAGTTATT  
GACCCCTTTATATATGCCTTTCGG  
AGCCCAGAGCT<3' (SEQ ID  
NO:4)

FIGURE 2B

# Metrazol Dose to Reach Seizure Stages

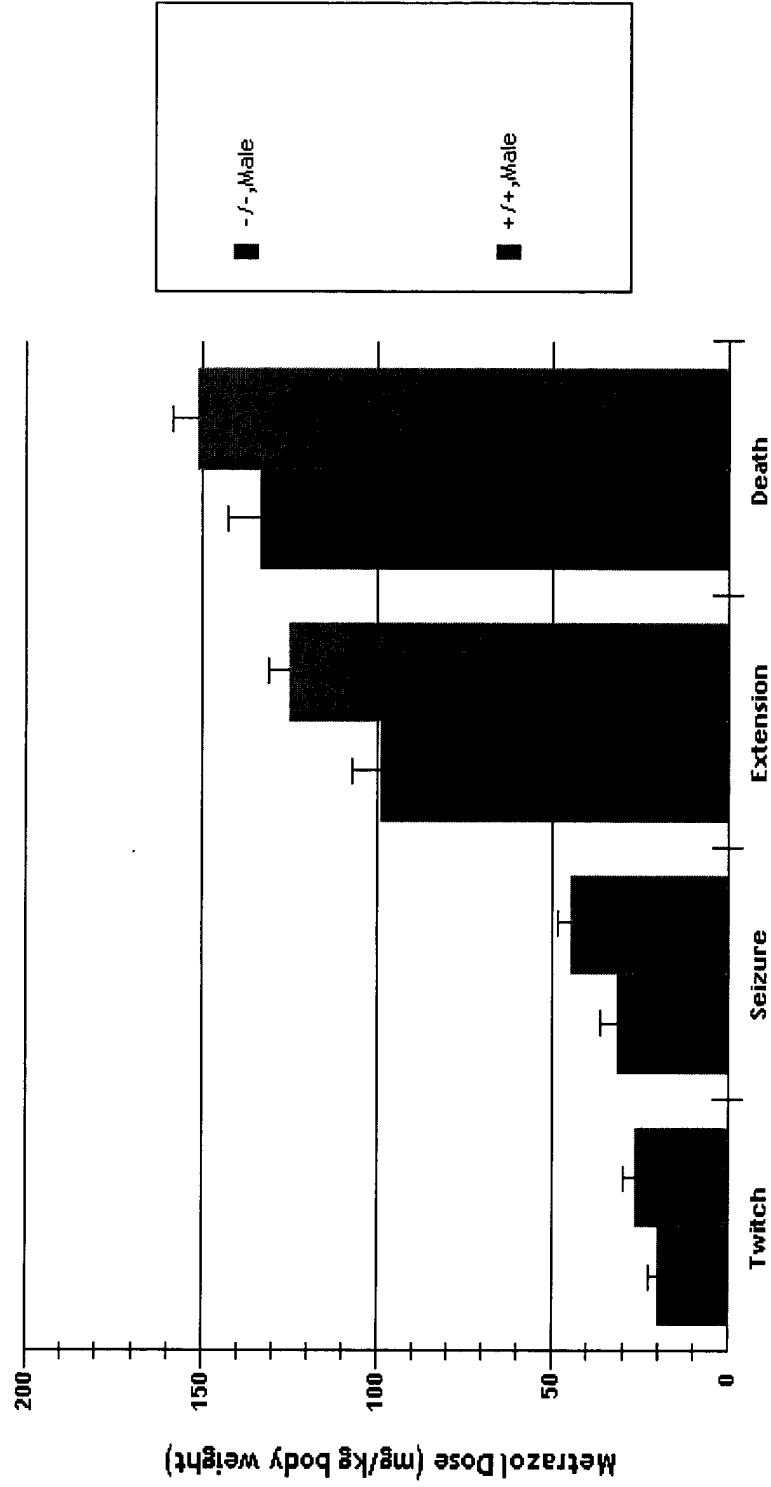


FIGURE 3

# Open Field Summary Data - Distance Travelled

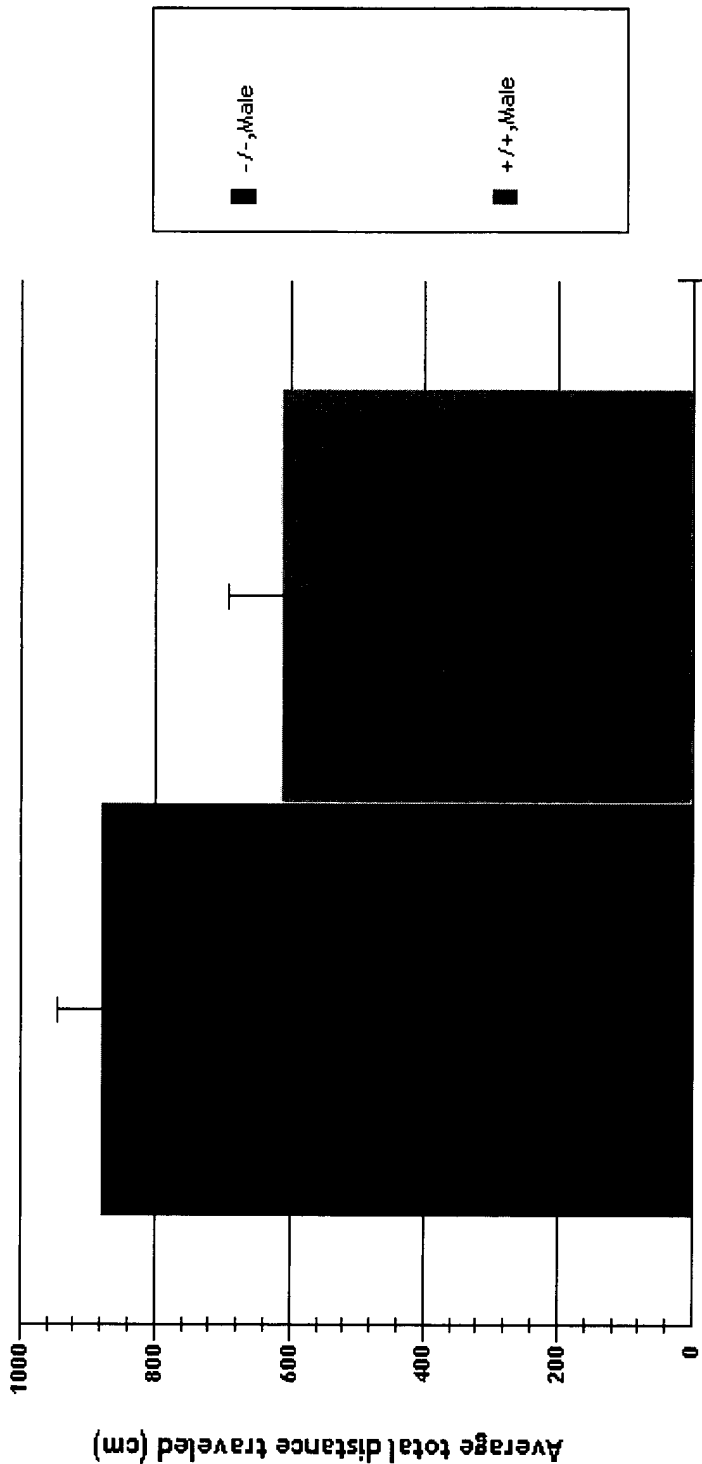
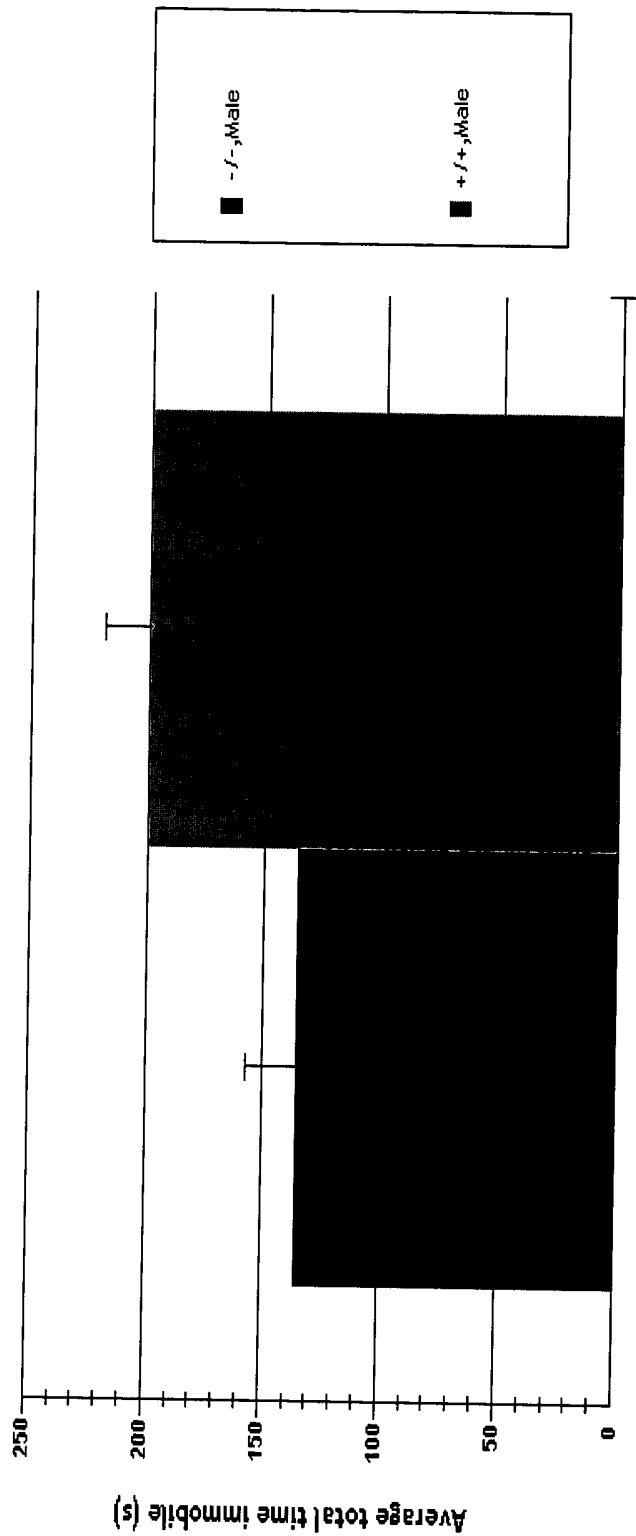


FIGURE 4

# **Tail Suspension - Total Time Immobile**



**FIGURE 5**